WHAT IS CLAIMED IS:

1.   In a TDM network having a plurality of switchable paths to a common destination, a method comprising:

5   receiving TDM traffic from a traffic source as a plurality of copies of traffic routed along a plurality of paths, each one of said paths having a receive circuit;

configuring a TDM switch to provide a route to a
10   common destination for each one of the paths;

determining a qualified copy of the traffic; and

discarding all copies of the traffic except for the qualified copy such that only the qualified copy is passed to the TDM switch for routing to the common
15   destination.

2.   The method of Claim 1, wherein determining comprises receiving management traffic on a path indicating a degradation or loss of signal on the path.

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3.   The method of Claim 1, wherein determining comprises detecting a loss of a keep-alive signal at one of the respective receive circuits.

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4.   The method of Claim 1, wherein determining is based upon the following criteria:

    alarm indication signal (AIS),

    loss of pointer (LOP), or

    missing terminating circuit card; thereafter

    bit error rate (BER) exceeding 10^{-3} in the path; thereafter

    signal degradation (SD) resulting from a BER exceeding 10^{-5} to 10^{-9}.

5.   The method of Claim 1, wherein discarding comprises setting a kill-bit to indicate whether the traffic should be switched through or discarded.

6.   The method of Claim 1, wherein determining comprises communicating information related to qualifying between the respective receive circuits.

7.   The method of Claim 1, wherein the paths comprise a first path in a first direction around a SONET UPSR and a second path in a second direction around the SONET UPSR.

8.   The method of Claim 1, wherein the TDM traffic is carried in VT or STS-1 formats within a transmission signal.

9.   The method of Claim 1, wherein the TDM switch is configured to route TDM traffic for a given virtual tributary (VT) from each respective receive circuit to the common destination.

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10.   In a TDM network having a plurality of paths to a destination, an apparatus comprising:

a plurality of receive circuits coupled to monitor signals on respective paths to a TDM switch, each receive circuit operable to set a kill-bit to accompany TDM traffic sent to the TDM switch to indicate whether the TDM traffic should be switched or discarded;

a memory coupled to the receive circuits and operable to receive the TDM traffic with accompanying kill-bits, the memory operable to store the TDM traffic having an accompanying kill-bit that has not been set, the memory further operable to discard the TDM traffic having an accompanying kill-bit that has been set; and

a communication path between the receive circuits and operable to convey qualifying information for the paths.

11.   The apparatus of Claim 10, wherein each receive circuit is operable to qualify TDM traffic by receiving management traffic on a path indicating a degradation or loss of signal on the path.

12.   The apparatus of Claim 10, wherein each receive circuit is operable to qualify TDM traffic by detecting a loss of a keep-alive signal of another receive circuit.

13. The apparatus of Claim 10, wherein each receive circuit qualifies the TDM traffic based upon the following criteria:

alarm indication signal (AIS),

5   loss of pointer (LOP), or

missing terminating circuit card; thereafter

bit error rate (BER) exceeding 10^{-3} in the path; thereafter

signal degradation (SD) resulting from a BER

10   exceeding 10^{-5} to 10^{-9}.

14. The apparatus of Claim 10, wherein each receive circuit is further operable to:

receive TDM traffic associated with a virtual

15   tributary (VT);

determine if the TDM traffic is pass-through based on the VT; and

if the TDM traffic is not pass-through, set an accompanying kill-bit if the receive circuit is stand-by

20   for the particular VT.

15. The apparatus of Claim 10, wherein the paths comprise a first path in a first direction around a SONET UPSR and a second path in a second direction around the

25   SONET UPSR.

16. The apparatus of Claim 10, wherein the TDM traffic is carried in VT or STS-1 formats within a transmission signal.

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17.   The apparatus of Claim 10, wherein the TDM switch is configured to route TDM traffic for a given virtual tributary (VT) from each receive circuit to the destination.

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18. A program embodied in computer-readable media and operable to perform the following steps:

receiving, at a receive circuit, TDM traffic from a traffic source as one of a plurality of copies of traffic routed along a plurality of paths;

determining, at the receive circuit, whether the received copy is a qualified copy of the traffic;

discarding the received copy if the received copy is not the qualified copy; and

communicating the received copy from the receive circuit to a TDM switch for routing to a destination if the received copy is the qualified copy.

19. The program of Claim 18, wherein determining comprises receiving management traffic at the receive circuit indicating a degradation or loss of signal on a corresponding path.

20. The program of Claim 18, wherein determining comprises detecting a loss of a keep-alive signal.

21. The program of Claim 18, wherein determining is based upon the following criteria:

alarm indication signal (AIS),

loss of pointer (LOP), or

missing terminating circuit card; thereafter

bit error rate (BER) exceeding 10^{-3} in the path; thereafter

signal degradation (SD) resulting from a BER exceeding 10^{-5} to 10^{-9}.

22. The program of Claim 18, wherein discarding comprises setting a kill-bit to indicate whether the traffic should be switched through or discarded.

23. The program of Claim 18, wherein determining comprises communicating information related to qualifying to another receive circuit.

24. The program of Claim 18, wherein the paths comprise a first path in a first direction around a SONET UPSR and a second path in a second direction around the SONET UPSR.

25. The program of Claim 18, wherein the TDM traffic is carried in VT or STS-1 formats within a transmission signal.

26. The program of Claim 18, wherein the TDM switch is configured to route TDM traffic for a given virtual tributary (VT) from each of the paths to the destination.